GOVDOC
BRA
5008

BOSTON
PUBLIC
LIBRARY

OPEN SPACES

NOW	YOU	SEE	IT,	NOW	YOU	DON'T
▲	▲	▲	▲	▲	▲	▲
100%	100%	80%	80%	60%	40%	20%

THE NEW APPROACH TO OPEN SPACE PLANNING

The first professional planner to recognize that all open spaces are *NOT* created equal is Ian L. McHarg, head of the Department of Landscape Architecture and Regional Planning at the University of Pennsylvania. His idea seems so simple and obvious, and has worked so well wherever it has been tried, that the wonder is no one thought of it earlier.

About ten years ago the Urban Renewal Administration asked Professor McHarg to develop standards for choosing open space in Metropolitan Philadelphia. At that time (and as a matter of fact, even today) each school of planning had its own hierarchy of priorities — a network of parks and green belts for city planners and 48 acres of public land per 1000 inhabitants for recreation experts. The planners tended to make their plans first, then impose them on the map.

Instead of using such special-interest criteria McHarg based his guide lines for land use on ecology. He calls his method "planning for natural resources" and "physiographic determinism" or, in other words, letting nature show the way.

Water processes are his chosen indicator. If these are operating as the natural lay of the land intended, the chances are that the environment as a whole is reasonably healthy. So in his scheme the open spaces which get high priority are those needed to protect the quantity, quality, and drainage of water. Their preservation can be justified for hard-headed practical reasons, and whether it is achieved by government regulation, purchase, or any other means is immaterial.

Metropolitan Philadelphia, where McHarg began his research, measures 3500 square miles. The Boston Metropolitan area is much smaller and that of Providence or Hartford smaller still. Nevertheless, McHarg's method applies as happily in New England as in Pennsylvania. Our physical terrain is similar. We have the same problems of mess, pollution, and formless growth. And we live in the same super-metropolis which stretches from north of Boston to south of Washington, D. C.

One of McHarg's most important findings was that, in spite of appearances, there is an actual abundance of open space. He believes that Metropolitan Philadelphia is typical. Three-fourths of its land area is at present in open space, and in 1980, after allowing for an expected 50 per cent increase in the population, two-thirds will still be open. These surprising figures make action worthwhile.

Here are McHarg's eight simple rules for his New Conservation:

1. The use of all surface waters plus their shorelines back for a distance of 200 feet must be regulated to keep the water level constant and help reduce pollution. Small brooks and streams are included among surface waters as well as large ponds, reservoirs, and harbors. Allowable commercial uses are those inseparable from the waterfront such as marinas and water-related industries. But the lion's share of riparian lands should be reserved for farms and woods, open space for recreation, and open space for housing and institutions.

2. No draining, filling, or developing of marshes. They are essential as flood storage areas, and in addition provide wildlife habitat and fish spawning grounds.

3. No development on flood plains up to the 50 year (2 per cent chance of being flooded in any year) level. "Flood plains are not for people," says McHarg flatly, although he would allow recreation, farming, and other uses which are not harmed or may even be benefited by occasional flooding.

4. The land surface above aquifers (the underground water-bearing strata from which we get our water) needs strict regulation. Some aquifers are separated from the surface by a layer of rock, others by more permeable material, so each is a special problem. Open space is preferable to any development, and some types of development must be prohibited. Atomic reactors, for instance, would always be taboo, also sewage treatment plants, and often houses using septic tanks.

Physiographic determinism (circa 1968)

5. All aquifer recharge areas, where surface water percolates into the ground most easily, are high priority, permanent open space. No development permitted; water resources come first.

6. No building nor even farming on ridges or slopes of 12 degrees or more. Soil erosion upsets the water equilibrium, and causes silting, turbidity, and other damage downstream. Since steep slopes are notoriously vulnerable, they should be kept in permanent forest.

7. Mature woodlands and forest are to be saved primarily because of their essential function as watersheds. Without them we would soon run out of water. As secondary benefits they control soil erosion, make floods less likely, may diffuse air pollution, and make winters warmer and summers cooler.

8. Keep prime agricultural lands in farms. Here McHarg strays from his guiding principle of water processes but, as he points out, these lands are thrice valuable: "they are equal to the best in the entire nation, they are located in the heart of Megalopolis, and they are beautiful." And they take centuries to develop and are irreplaceable.

Professor McHarg and his associates work out their plans by using overlays of maps printed on transparent paper. Each map covers one element of the area's natural design — its water resources, for example, its existing woodlands, or its geological formations. It is marked to show where, from this single point of view, it would be best to build and where development would be damaging. Then the maps are put together, and a composite picture appears. As a rule it shows that the valleys and lowlands should be kept open, the hills and ridges kept forested, and development (which is inevitable) concentrated on the plateaus in between.

And it also shows that when open spaces are laid down according to the design of nature, all the familiar goals are satisfied too. The acres and the green belts, the opportunities for recreation, preservation of wildlife habitat, the best of the views and many "unique areas" are all saved, almost automatically. The land is permeated with green open space — located precisely where it is most effective for conservation.

(Mr. McHarg's new book DESIGN WITH NATURE will be published about Christmas 1968. For further information write 1740 Cherry St., Philadelphia, Pa. 19103.)

OPEN SPACE, TAX RATES, AND REAL ESTATE VALUES

Open space means lower taxes now and higher real estate values indefinitely into the future.

How much tax relief?

"The New York Regional Plan Association computed that in one town use of vacant land for a public park rather than for houses paying the average tax per share would result in a 15 per cent lower annual cost to the town." OPEN SPACE FOR URBAN AMERICA.

"A planning firm found that if Lexington, Mass., paid $1,000,000 for about 2000 acres of undeveloped land, it would gain a net savings over the cost of providing municipal services for the same areas of $250,000 annually." THE CONSERVATION LEADER.

"If the land went for a park the tax rate would rise from $14.33 to $16.91. But . . . if the land went for this type of subdivision ($35,000 houses on 2-acre minimum lots) the tax rate would rise to $21.64." Richard D. Goodenough, Upper Raritan Watershed Association.

Unlike housing developments, industry pays its own way, but the benefits to the tax rate are often neither as large nor as lasting as most towns expect.

"Needham's New England Industrial Center increased that Town's non-residential valuations from about 5 per cent to 12 per cent of the total, and from 1954 to 1957 certainly helped to stabilize the tax rate. However, a recent forecast of fiscal trends in Needham showed that industrial base becoming a smaller and smaller percentage of the total as the town grows residentially, with the result that the tax rate has been projected upwards . . . " Charles W. Eliot and Planning and Renewal Associates.

The most spectacular fiscal effect of open space is on long-range real estate values.

"The Union County Park Commission (N. J.) reported a 631.7 per cent increase in assessed valuations on properties adjacent to Warinanco Park, for the 17-year period from 1922 to 1939. This was nearly fourteen times the average increase of 46.4 per cent for the entire city during the same period." URBAN LAND INSTITUTE. (The increased taxes more than paid the operating costs of the park *and* interest *and* amortization of the park bonds.)

"In Minneapolis, the increase in property values attributable to parks is several times the cost of the entire park system, while in Essex County, N. J., land adjacent to parks increased in value three times as fast as other property." OPEN SPACE FOR URBAN AMERICA.

"The first band of property around the edge of a forest preserve increases in value because the park is there. It has been said that the increased yield on this first band of property is more than enough to acquire and develop the preserves which attract the best housing, the best industrial parks, the best commercial areas, the best institutional development in the Chicago area." PROCEEDINGS OF THE WHITE HOUSE CONFERENCE ON NATURAL BEAUTY.

A century ago, when Boston was one-fourth its present size, two similar brooks, Dorchester Creek and Muddy River, rose from what is now Franklin Park and meandered by different routes to the harbor. The Dorchester Creek area was a solid middle-class neighborhood, a tax collector's delight, while Muddy River attracted shanty developments.

Property of
BOSTON REDEVELOPMENT AUTHORITY
Library

Then Dorchester Creek was filled and built upon — why not make some valuable new land for the tax rolls? Soon after the last stretch was buried, the district began to go downhill. By 1935 Roxbury was costing the city more than it returned in taxes, and the gap has widened steadily. Muddy River, on the other hand, was converted into a long, winding park bordered by public gardens, woods, and open fields. From Franklin Park to the Fenway, Muddy River country today is a financial asset and an ornament to the city.

Open space always seems expensive, but the fact is, land will probably never again cost as little as it does now. The Department of the Interior calls a 10 per cent annual increase "the reasonable escalation factor." In outer suburbs and recreation areas the rise has been much steeper. Suburban land which cost $500 an acre in 1960 now sells for $1500. In parts of southern New Hampshire the price of cutover back-woods with no waterfront or other special advantages has multiplied by four in the last six years.

The best investment a town can make is open space and the best time to make it is NOW.

AN INTRODUCTION TO CLUSTER DEVELOPMENTS

Cluster development is simply the old New England village brought up to date — houses built close together and, at the front door, open land held in common. Because it seems to involve down-grading of zoning laws, town planning boards are often suspicious. They shouldn't be. Cluster development ranks as a major conservation measure, and the down-grading is an illusion.

Zoning ordinances exist, of course, to regulate land use and population density. When a developer buys a 100-acre parcel of land zoned for one-acre lots, he could plan a conventional subdivision in his sleep. He begins by allowing some 15 acres for roads, which leaves him 85 house lots. He then draws a grid, marks a house on each lot, and his planning is done.

When the local zoning law is changed to permit cluster development, the developer can still build only 85 houses on his 100-acre parcel, so overall density is not affected. However, the size of the individual lots is reduced, probably to half an acre or even less, and the houses on their smaller lots are built in compact groups in order that the unused part of the land will fall into large, continuous areas.

A little arithmetic shows that the acreage which is left open amounts to an impressive fraction of the original tract. In one well known example, a 75-acre tract was zoned for 72 houses. By changing the zoning law to allow smaller lots, the same 72 houses were built in three clusters of 24 each, and 40 acres — more than half of the original parcel — became park and recreation land.

The development's open space may be turned over to the town or deeded to a local land trust or other private conservation body. As a rule, though, it is owned in common by all the residents (who should own it because, after all, they paid for it), and managed by their homeowners association. The associations have a good record, especially when membership is mandatory. Hundreds are now in existence, several have been operating successfully for more than a century, and almost none have ever sold out.

With cluster development everyone wins. For developers the cluster layout means fewer miles of roadway to build and shorter utilities lines, among other advantages — no wonder they are so enthusiastic. Towns spend less in maintenance; Amherst, Mass., for instance, saves about $4000 a year because Echo Hill is a cluster and not a conventional development. Homeowners have less grass to cut and lower upkeep costs in general as well as acres of their own convenient recreation land to enjoy. And permanent open space is saved.

(*Challenge of the Land* by Charles E. Little has an excellent chapter on cluster developments plus a bibliography and two model ordinances. It costs $3.75, and is published by Open Space Action Institute, 145 East 52nd St., New York, N. Y. 10022.)

Where To Go For Further Information

A good introduction to private action is *Stewardship*, a book of case histories many of which show how altruism can be combined with tax advantages. (Open Space Action Committee, 145 East 52nd St., New York, N. Y. 10022; bound in paper, $3.00.) *Open Space For Urban America* is the U. S. Department of Housing and Urban Development's comprehensive guide to both public and private action. This invaluable book costs only $1.50, and can be obtained from the Superintendent of Documents, Washington, D. C. 20402.

For more personalized information the place to go is the office in your state's government which is concerned with natural resources and/or conservation. A telephone call will give you its name. You will find that the need for open space is so urgent that in addition to their own land-acquisition programs, federal and state governments help local groups with money, technical advice, and other services for strictly local projects.

MASSACHUSETTS AUDUBON SOCIETY

LINCOLN, MASSACHUSETTS 01773

CONSERVATION · EDUCATION · RESEARCH